

REMARKS

Applicants wish to express their sincere appreciation to Examiner Volper for the time that Examiner Volper and his supervisor Ricky Ngo spent with Applicants' representative on April 17, 2003 during a personal interview. Several key issues were discussed during the interview, including the reference *Chen et al.* and the distinguishing features between the present application and the *Chen et al.* reference. The details of these features are clearly explained below with reference to the claims.

Applicants further wish to express their appreciation to Examiner Volper for his statement in the previous Office Action in which claims 2, 4, 7, 9, 10, 12, 17, 18, and 20 have been indicated as allowable.

Response to 35 U.S.C. §103 Rejection

Claims 1 and 13 stand rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Tsui et al.* (U.S. Patent No. 6,278,730) in view of *Chen et al.* (U.S. Patent No. 6,032,019). Applicants respectfully traverse this rejection.

The Office Action identifies that *Tsui et al.* includes a central processor 426, system memory 425, and display device 413, all of which are coupled to a system bus 420. The Office Action then expresses the deficiencies of the *Tsui et al.* reference by stating:

“Tsui fails to disclose at least one group of a number of nodes, each node having a number of channels. Tsui also fails to disclose that the software stored in the system memory provides node level and group level test results to be displayed on the display device 413.”

Chen et al. discloses a device used for locating ingress noise gaps for an upstream data carrier in a cable network. However, *Chen et al.* does not overcome the stated deficiencies of *Tsui et al.* as mentioned in the Office Action, since *Chen et al.* fails to teach or suggest “software stored in the system memory [that] provides node level and group level test results to be displayed on the display device 413.” Even though *Chen et al.* includes an echo device that can be “located within the CMTS or anywhere on the downstream path including the subscriber's home,” *Chen et al.* does not further include “test result interface logic” that includes all three of group level display logic, node level display logic, and channel level display logic, as is claimed. Therefore, since independent claims 1 and 13 include subject matter that is not taught or

suggested by these references, it is respectfully requested that the rejection of these claims be withdrawn.

Claim 1:

In particular, independent claim 1 recites "*test result interface logic*" which includes "*group level display logic*," "*node level display logic*," and "*channel level display logic*." *Tsui et al.* and *Chen et al.*, taken alone or in combination, do not teach or suggest "display logic" on the group level, the node level, and the channel level. Instead, these references appear to test signals at one level only. Therefore, these references do not teach or suggest logic for displaying at all three levels, nor would there be a motivation to include such a feature since the references are only concerned with one level.

Furthermore, the present application teaches generating a display of the test result components on a display device which displays the test result components on the group level, node level, and channel level. Claim 1 recites a number of "*group level test result components*," "*node level test result components*," and "*channel level test result components*" that are generated "*on the display device*." Again, the combination of *Tsui et al.* and *Chen et al.* do not test on the three levels and thus fail to further teach or suggest the claim element of generating these three sets of test result components "*on the display device*."

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. *See, e.g., In re Dow Chemical*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). Applicants assert that the combination of cited references does not suggest all features of claim 1 as mentioned above. For at least this reason, Applicants request that the Examiner kindly withdraw the rejection. If the above-mentioned features can be found in these references, Applicants respectfully request that the Examiner specifically point out where these features can be found.

The Office Action includes a statement that the echo device of *Chen et al.* can be located anywhere in the downstream path of a cable system. However, even if the echo device were to be placed anywhere in the downstream path, it still is only capable of identifying noise at one level. There is no motivation suggested in *Chen et al.* that

would lead one of ordinary skill in the art to modify the echo device for use on the group level, node level, and channel level. "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 733 F.2d 900, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

The Office Action further states that "it would have been obvious to place the echo device of Chen ... in the system of Tsui to provide hierarchical test results on a channel, node, or group level respectively." Applicants respectfully disagree with this statement. Assuming, for the sake of argument, that it would have been obvious to make this particular combination, the combination would not provide the alleged results of proving "hierarchical test results on a channel, node, or group level." Instead, the result would be precisely what *Chen et al.* teaches, *i.e.* a device that locates upstream ingress noise gaps at the head end of a cable television network. The reference tests at one level only and does not provide hierarchical test results on the three levels.

The Office Action further states that "one of ordinary skill in the art would have been motivated to [place the echo device in the system of *Tsui et al.*] because each segment of the cable system...would yield different test results." Applicants respectfully disagree with this statement. First of all, Applicants contend that there is no motivation taught or suggested in the prior art to make the implied modification of placing the echo device in *Tsui et al.* Secondly, the prior art does not suggest such a modification for the reason that "each segment of the cable system...would yield different test results." In fact, the idea of each segment yielding different test results is not a concern for these references since they are only concerned with the test results on one level. This statement is actually a suggestion that can be attributed to the present application, but it is not supported by the prior art. Therefore, use of such a statement in a 35 U.S.C. §103 rejection is a result of improper hindsight of Applicants' own invention. For at least these reasons, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. §103 be withdrawn.

Claim 13:

Independent claim 13 recites the steps of "*generating a number of group level test result components*," "*generating a number of node level test result components*," and "*generating a number of channel level test result components*."

The combination of *Tsui et al.* and *Chen et al.* fails to include generating a number of test result components on the group level, node level and channel level. In contrast, these references provide a test of signals at only one level and do not suggest a method that generates test result components on the three levels. The references also fail to grasp the benefits that the inventors have taught in the present application in which test result components on the group level, node level, and channel level can be generated "*on a display device*" thereby allowing a user to view test results on a grander scale (group level) and on a smaller scale (channel level), all test results being shown on one display device.

Claims 5, 6, 8, 11, 14-16, and 19:

Claims 5, 6, 8, 11, 14-16, and 19 stand rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Tsui et al.* in view of *Chen et al.*, as applied to claims 1 and 13, and further in view of *Hsu et al.* (U.S. Patent No. 6,483,814).

Applicants respectfully traverse this rejection on the grounds that independent claims 1 and 13 include subject matter that is neither taught nor suggested by *Tsui et al.* in view of *Chen et al.*, as argued above, and that *Hsu et al.* fails to overcome the deficiencies of *Tsui et al.* and *Chen et al.* For at least the reason that these dependent claims depend from allowable claims 1 and 13, it is believed that these claims are likewise allowable. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Moreover, claims 5, 6, 8, 11, 14-16, and 19 include additional elements that are neither taught nor suggested by the cited references.

Claim 3:

Claim 3 stands rejected under 35 U.S.C. §103 as allegedly being unpatentable over *Tsui et al.* in view of *Chen et al.*, as applied to claims 1 and 13, and further in view of *Schwartz* (U.S. Patent No. 5,883,882) and *Hsu et al.* (U.S. Patent No. 6,483,814).

Applicants respectfully traverse this rejection on the grounds that independent claim 1 includes subject matter that is neither taught nor suggested by *Tsui et al.* in view of *Chen et al.*, as argued above, and that *Schwartz* and *Hsu et al.*, taken alone or in combination, fail to overcome the deficiencies of *Tsui et al.* and *Chen et al.* For at least the reason that claim 3 depends from allowable claim 1, it is believed that claim

3 is likewise allowable. Moreover, claim 3 includes additional elements that are neither taught nor suggested by the cited references.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all rejections have been traversed, and that the pending claims 1-20 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

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